

### **DETAILED ACTION**

1. Claims 19 and 30, and 20-29 and 31-36 that depend therefrom, are objected to because of the following informalities: the independent claims recite the method for removal and preventing "asphaltene-paraffin-**vax** precipitates". Did Applicant intend the highlighted term to instead be "**wax**"? Appropriate correction is required.

#### ***Specification***

2. The use of trademarks, such as SUPRAMIL and TWEEN™80 (see present claims 20 and 28) has been noted in this application. They should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

#### ***Claim Rejections - 35 USC § 101***

3. Claims 30-33 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 30-33 provide for the use of a biodegradable macromolecular polymeric material, but, because the claim does not set forth any steps involved in the method/process, it is unclear as to what method/process Applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

6. Claims 20, 28 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites the trademarks SUPRAMIL and TWEEN<sup>TM</sup>80. The inclusion of a trademark renders the claim indefinite because the relationship between a trademark and the product it identifies is sometimes indefinite, uncertain, and arbitrary. The formula or characteristics of the product may change from time to time and yet it may continue to be sold under the same trademark. In patent specifications, every element or ingredient of the product should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is meant. Arbitrary trademarks that are liable to mean different things at the pleasure of manufacturers do not constitute such language. *Ex Parte Kattwinkle*, 12 USPQ 11 (Bd. App. 1931).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 19, 21-27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by the article "Microbes Aid Heavy Oil Recovery in Venezuela" by Partidas et al., from Oil & Gas Journal, pages 62-64 (6/15/1998), hereinafter 'Partidas'. This journal article document was submitted by Applicant with the IDS of October 28, 2005.

Partidas discloses injecting a microbial solution into a well bore to form a bacterial layer on a well surface, wherein the solution composition is a suspension containing potassium chloride and a concentration of microbes of 8,000 to 54,000 ppm, wherein the solution is allowed to set in the well for up to 15 days, and wherein a proprietary surfactant is added to the well treatment. (Page 63-64; Table 2)

Partidas discloses that this microbial solution is effective in preventing asphaltene agglomeration and paraffin scaling deposition in the surface of the well bore. (Page 62)

Thus, the claims are anticipated by Partidas.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 20, 28 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Partidas, as applied to claim 19 above, and further in view of United States Patent Number (USPN) 6,143,709 to Carey (hereinafter 'Carey') or USPN 4,941,533 to Buller et al. (hereinafter 'Buller').

Partidas was discussed above in the instant action. Partidas fails to disclose the type of surfactant added to the microbial solution treatment composition. Nor does Partidas disclose the treatment solution further containing a biodegradable macromolecular material, such as xanthan.

However, Carey teaches that adding a surfactant additive, such as a fatty alcohol ethoxylates or an ethoxylated alkyl ether sulfate, to a well treatment composition is commonly done to enhance the viscosity of the treatment fluid to provide more effective stimulation to produce more hydrocarbon fluids. (Col. 2, line 21 to col. 3, line 21)

Similarly Buller teaches adding xanthan, a polysaccharide biopolymer, to increase the viscosity of treatment fluids containing large amounts of desirable microbial

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products to prevent clogging and loss of hydrocarbon fluid production. (Col. 2, lines 4-14)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time that the claimed invention was made to include a fatty alcohol ethoxylated surfactant, and/or a biopolymer, such as xanthan, as a thickener in Partidas' microbial well treatment fluid composition. It would have been obvious to one skilled in the art to incorporate the thickening agent to prevent clogging in the well due to agglomeration of the aqueous fluid composition at the well surface, and thereby attain a resultant treatment fluid that is more effective in hydrocarbon fluid production as taught by Carey and Buller.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN J. FIGUEROA whose telephone number is (571)272-8916. The examiner can normally be reached on Monday-Thursday 8:00-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJF/RPG

/John J. Figueroa/  
Examiner, Art Unit 1796